

WHAT IS CLAIMED IS:

1. An electric motor, comprising:
 - a shaft running axially through the motor;
 - a sleeve at least partially surrounding the shaft, the sleeve including a periphery defining an open end;
 - a frontplate covering the open end of the sleeve; and
 - a member positioned between the sleeve and the frontplate, the member being formed of a unitary piece of non-conductive material including a first portion positioned between the sleeve and the frontplate, a second portion extending axially with respect to the sleeve, and a third portion extending radially;wherein the member reduces a leakage current through a bearing of the motor.
2. The motor of claim 1, wherein the member is solid.
3. The motor of claim 1, wherein an inner periphery of the third portion defines at least two notches, each notch accepting a portion of one fastener as each fastener extends through the motor.
4. The motor of claim 1, further comprising a second member positioned between the sleeve and a backplate of the motor.
5. The motor of claim 4, wherein the second member defines a tab that is positioned within a notch defined by the sleeve to rotationally orient the backplate with respect to the sleeve.
6. The motor of claim 1, further comprising a shoulder positioned adjacent to the open end of the sleeve, wherein the third portion of the member is positioned adjacent to the shoulder.

7. The motor of claim 1, further comprising a backplate coupled to an opposite end of the sleeve, wherein the backplate is made of non-conductive material.

8. An electric motor, comprising:

a shaft running axially through the motor;

a sleeve at least partially surrounding the shaft, the sleeve including a periphery defining an open end;

a frontplate covering the open end of the sleeve, the frontplate defining at least two holes through which fasteners extend, the fasteners extending from the frontplate, through the sleeve, and through a backplate of the motor to couple the frontplate to the motor; and

a member positioned between the sleeve and the frontplate, the member being formed of a solid, unitary piece of non-conductive material defining a single opening through which the shaft extends and being shaped to generally follow the periphery of the open end of the sleeve, the member including a first portion positioned between the sleeve and the frontplate, a second portion extending axially with respect to the sleeve, and a third portion extending radially;

wherein the member reduces a leakage current through a bearing of the motor.

9. The motor of claim 8, further comprising a second member positioned between the sleeve and a backplate of the motor.

10. The motor of claim 9, wherein the second member defines a tab that is positioned within a notch defined by the sleeve to rotationally orient the backplate with respect to the sleeve.

11. The motor of claim 8, further comprising a shoulder positioned adjacent to the open end of the sleeve, wherein the third portion of the member is positioned adjacent to the shoulder.

12. A member for reducing leakage current through components of an electric motor including a sleeve and a frontplate, the member being solid and unitary, the member comprising:

a first portion configured to be positioned between the sleeve and the frontplate of the motor;

a second portion configured to be extended to a shoulder of the sleeve; and

a third portion configured to contact the shoulder of the sleeve.

13. The member of claim 12, wherein an inner periphery of the third portion defines at least two notches configured to accept portions of fasteners of the motor.

14. The member of claim 12, wherein the first and third portions are configured to extend radially with respect to the motor, and the second portion is configured to extend axially with respect to the motor.

15. The member of claim 12, wherein the member is made of a non-conductive material.

16. A method of assembling a motor including a sleeve and a frontplate, the method comprising:

positioning a unitary member on the frontplate, wherein the member includes a first portion extending along a periphery of an open end defined by the sleeve, and a second portion extending axially with respect to the sleeve;

coupling the sleeve to the frontplate so that the first portion of the member is positioned between the frontplate and the sleeve;

providing various components of the motor in the sleeve; and

coupling a backplate to the motor.

17. The method of claim 16, further comprising running a fastener used to couple the frontplate to the motor through a notch defined in an inner periphery of a third portion of the member, the third portion being seated in a shoulder of the sleeve.
18. An electric motor, comprising:
a shaft running axially through the motor;
a sleeve at least partially surrounding the shaft, the sleeve including a periphery defining an open end and a notch;
a backplate covering the open end of the sleeve; and
a member positioned between the sleeve and the backplate, the member being formed of non-conductive material including a first portion positioned between the sleeve and the backplate, and a second portion extending axially to the shoulder of the sleeve, and the member also defining a tab positioned within the notch of the sleeve to rotationally orient the backplate with respect to the sleeve;
wherein the member reduces a leakage current through a bearing of the motor.
19. The motor of claim 18, wherein the member is unitary and solid.
20. The motor of claim 18, wherein the member includes a third portion extending perpendicular with respect to the second portion and radially with respect to the motor.
21. The motor of claim 18, wherein the tab extends radially through the second portion of the member.